Amendments to the Claims:

This listing of claims replaces all prior versions, and listing, of claims in the application.

Listing of Claims:

Claim 1. (Currently amended): A microcapsule having an average diameter of about 2000μ or less comprising an inorganic antimicrobial agent encapsulated within a hydrophilic polymer, said hydrophilic polymer having a water absorption at equilibrium of at least 5 % by weight.

Claim 2. (Original): A microcapsule according to claim 1 wherein the inorganic antimicrobial agent comprises a metal or metal ion selected from the group consisting of silver, copper, zinc, tin, gold, mercury, lead, iron, cobalt, nickel, manganese, arsenic, antimony, bismuth, barium, cadmium, chromium, thallium and combinations thereof.

Claim 3. (Original): A microcapsule according to claim 2 wherein the antimicrobial metal or metal ion is silver, zinc, copper or a combination of any two or all three of the foregoing.

Claim 4. (Original): A microcapsule according to claim 1 wherein the antimicrobial agent is selected from the group consisting of metal salts, antimicrobial water soluble glasses, antimicrobial metal ion-exchange type agents and combinations thereof.

Claim 5. (Original): A microcapsule according to claim 4 wherein the antimicrobial agent is an antimicrobial metal ion-exchange type agent comprising a ceramic carrier having ion-exchanged antimicrobial metal ions.

Claim 6. (Original): A microcapsule according to claim 5 wherein the ceramic carrier is selected from the group consisting of zeolites, hydroxyapatites, and zirconium phosphates.

Claim 7. (Original): A microcapsule according to claim 6 wherein the antimicrobial agent is a zeolite that contains silver ions.

Claims 8 and 9. (Cancelled)

Claim 10. (Currently amended): A microcapsule according to claim 1~~8~~ wherein the hydrophilic polymer is a polymer with water absorption at equilibrium of at least about 20% by weight.

Claim 11. (Currently amended): A microcapsule according to claim 1~~8~~ wherein the hydrophilic polymer is selected from the group consisting of polyhydroxyethyl methacrylate, polyacrylamide, N–vinyl-2-pyrrolidinone, polysaccharides, polylactic acid, polyamide and polyurethane.

Claim 12. (Withdrawn): A microcapsule according to claim 11 wherein the hydrophilic polymer is polyurethane.

Claim 13. (Original): A microcapsule according to claim 1 wherein the microcapsule contains from 1 to 1000 parts by weight of antimicrobial agent based upon 100 parts by weight of hydrophilic polymer.

Claim 14. (Original): A microcapsule according to claim 1 wherein the microcapsule contains from 10 to 200 parts by weight of antimicrobial agent based upon 100 parts by weight of hydrophilic polymer.

Claim 15. (Original): A microcapsule according to claim 1 wherein the microcapsule contains from 20 to 100 parts by weight of antimicrobial agent based upon 100 parts by weight of hydrophilic polymer.

Claim 16. (Original): A microcapsule according to claim 1 further comprises an inorganic discoloration inhibiting agent.

Claim 17. (Original): A microcapsule according to claim 16 wherein said discoloration inhibiting agent is an ammonium compound.

Claim 18. (Original): A microcapsule according to claim 16 wherein the antimicrobial agent comprises an ion-exchange type antimicrobial agent and said inorganic discoloration inhibiting agent comprises ion-exchanged ammonium ions contained within said antimicrobial agent.

Claim 19. (Original): A microcapsule according to claim 1 further comprising a dopant agent.

Claim 20. (Original): A microcapsule according to claim 19, wherein said dopant is an inorganic sodium salt.

Claim 21. (Original): A microcapsule according to claim 20, wherein said dopant is sodium nitrate.

Claim 22. (Original): A microcapsule according to claim 1 wherein the microcapsule comprises a discrete particle of an antimicrobial agent encapsulated within a hydrophilic polymer.

Claim 23. (Original): A microcapsule according to claim 1 wherein the microcapsule comprises multiple particles of one or more antimicrobial agents encapsulated within a hydrophilic polymer.

Claims 24-37 (Cancelled)

Claim 38. (Currently amended): A polymer composition comprising a) an antimicrobial agent in the form of microcapsules having an average diameter of about 2000μ or less and comprising an inorganic antimicrobial agent encapsulated in a hydrophilic polymer dispersed in b) a matrix polymer wherein the microcapsules are present as a discrete phase within the matrix polymer, said hydrophilic polymer having a water absorption at equilibrium of at least 5 % by weight.

Claim 39. (Original): The polymer composition of claim 38 wherein the matrix polymer is a condensation polymer or an addition polymer.

Claim 40. (Original): The polymer composition of claim 39 wherein the matrix polymer is an addition polymer selected from the group consisting of polypropylene, polyethylene, polystyrene, polyvinylchloride, ABS, SAN, epoxy resins and polytetrafluoroethylene.

Claim 41. (Withdrawn): The polymer composition of claim 39 wherein the matrix polymer is a condensation polymer selected from the group consisting of polyurethanes, polycarbonates, polyesters, polyamides, polyimides and silicone polymers.

Claim 42. (Original): The polymer composition of claim 38 wherein the matrix polymer is not a hydrophilic polymer.

Claim 43. (Withdrawn): The polymer composition of claim 38 wherein the matrix polymer is a hydrophilic polymer whose hydrophilic property is different from that of the hydrophilic polymer encapsulant used to make the microcapsule.

Claim 44. (Original): The polymer composition of claim 38 wherein the matrix polymer is a copolymer.

Claim 45. (Original): The polymer composition of claim 38 wherein the matrix polymer is a polymer blend.

Claims 46-50 (Cancelled)

51. (Currently amended): The microcapsule according to claim ~~1~~ 23 wherein the mean average diameter is from about ~~10~~ 15μ to about 1000μ.

52. (Currently amended): The microcapsule according to claim ~~1~~ 23 wherein the mean average diameter is from about ~~15~~ 50μ to about 300μ.

53. (Currently amended): The polymer composition according to claim ~~38~~ 58 wherein the mean average diameter is from about ~~10~~ 15μ to about 1000μ.

54. (Currently amended): The polymer composition according to claim ~~38~~ 58 wherein the mean average diameter is from about ~~15~~ 50μ to about 300μ.

55. (Previously presented): The polymer composition according to claim 38 wherein the antimicrobial agent is selected from the group consisting of metal salts, antimicrobial water soluble glasses, antimicrobial metal ion-exchange type agents and combinations thereof.

56. (Previously presented): The polymer composition according to claim 38 wherein the antimicrobial agent is an antimicrobial metal ion-exchange type agent comprising a ceramic carrier having ion-exchanged antimicrobial metal ions.

57. (Previously presented): The polymer composition according to claim 38 wherein the microcapsule comprises a discrete particle of an antimicrobial agent encapsulated within a hydrophilic polymer.

58. (Previously presented): The polymer composition according to claim 38 wherein the microcapsule comprises multiple particles of one or more antimicrobial agents encapsulated within a hydrophilic polymer.

59. (New): The microcapsule according to claim 22 wherein the antimicrobial agent is coated with the hydrophilic polymer and the coating has a thickness of 1μ to 15μ.

60. (New): The microcapsule according to claim 22 wherein the antimicrobial agent is coated with the hydrophilic polymer and the coating has a thickness of 1μ to 10μ.

61. (New): The polymer composition according to claim 57 wherein the antimicrobial agent is coated with the hydrophilic polymer and the coating has a thickness of 1μ to 10μ.

62. (New): The polymer composition according to claim 57 wherein the antimicrobial agent is coated with the hydrophilic polymer and the coating has a thickness of 1μ to 15μ.